



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,366	03/12/2004	Stanislav M. Snair	000417.00018	6070
22907 7590 04/06/2007 BANNER & WITCOFF, LTD. 1100 13th STREET, N.W. SUITE 1200 WASHINGTON, DC 20005-4051			EXAMINER LOPEZ, CARLOS N	
			ART UNIT 1731	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/06/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/798,366

Applicant(s)

SNAIDR ET AL.

Examiner

Carlos Lopez

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 24-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23,45 and 46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2 IDS's</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 1-23 and 45-46 in the reply filed on 3/22/07 is acknowledged.

Priority

Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed application, Application No. 09/954,432, fails to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application. The originally filed specification does not mention any burn rate temperature that would provide for the release of oxygen from the oxygen storage and donor catalyst.

Accordingly, claims 45-46 are not entitled to the benefit of the prior application.

Art Unit: 1731

This application repeats a substantial portion of prior Application No. 09/954,432, filed 09/18/00, and adds and claims additional disclosure not presented in the prior application such as the release of oxygen from the oxygen containing catalyst. Since this application names an inventor or inventors named in the prior application, it may constitute a continuation-in-part of the prior application. Should applicant desire to obtain the benefit of the filing date of the prior application, attention is directed to 35 U.S.C. 120 and 37 CFR 1.78.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20-23, and 45-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claimed tobacco rod and treatment paper have no nexus. A person of ordinary skill in the art would not be able to ascertain how the paper is arranged with the tobacco rod because there are a plurality of ways to arrange the paper along the tobacco rod.

Additionally, in claim 46, the phrase "said treatment paper" lacks antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1731

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,12, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Snaidr et al WO 98/16125. Claim 29 discloses a porous tubular element comprising cerium oxide. The tubular element encases a tobacco charge, which is deemed as the claimed tobacco rod.

Claims 1,4-7, 12-14,17-18,20-21, and 45-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Bowen et al US 6,286,516 or alternatively under 35 U.S.C. 102(a) as being anticipated by Bowen et al WO 99/53778. '516 reference will be cited in the instant rejection. Bowen discloses a cigarette side-stream smoke treatment material. The treatment material may be wrapped over and be in substantial contact with a cigarette (Col. 5,lines 15ff). The treatment material is comprised of a first component comprising a porous non-combustible material, see Col. 4, lines 1ff, which as noted in col. 7 lines 5ff and in column 8,lines 45ff is a sorbitive material such as zeolites. The second component of the treatment material is incorporated in the first component, see Col 4, lines 1ff, for which it is an oxygen storage component such as cerium oxide, see Col. 7, lines 40ff. As noted in Col. 7,lines 33ff, the cerium oxide is in situ or applied to the surface of the zeolite. Hence, the claimed porous material having cerium oxide is anticipated by Bowen et al.

Art Unit: 1731

In addition to the first and second components, a catalyst is added to the treatment material selected, among other things from rare earth metals oxides, platinum oxides, and transition metal oxides, see Col. 8, lines 34ff, hence reading on claims 6-7, 17-18, 21

As for claims 14, the cerium oxide is in situ or applied to the surface of the zeolite, see Col. 7, lines 33ff.

As for claim 5, applying to the surface of the zeolite as noted in above, inherently creates a layer of the cerium oxide.

As for claim 45-46, Column 4, lines 7ff of Bowen notes that the oxygen storage component releases oxygen at temperature of 300⁰C, wherein the free burn rate temperature of the cigarette ranges from 400⁰C -900⁰C as noted in Col. 13, lines 50ff.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen et al WO 99/53778 ('778) in view of Schlatter et al (US 5,040,551). As noted in page 13 of '778, catalyst material may be added to the oxygen storage material and treatment material (zeolite). '778 further notes that catalyst is used to promote various reactions and may be transition metal oxides. '778 is silent disclosing Iron oxide

Art Unit: 1731

as a transition metal oxide. However, Schlatter, at Col. 4, lines 16ff, teaches of using Iron oxide to reduce carbon monoxide in cigarette smoke. Hence, at the time the invention was made it would have been obvious to a person of ordinary skill in the art to have used iron oxide as '778's catalyst as taught by Schlatter in order to reduce carbon monoxide in cigarette smoke.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen et al WO 99/53778 ('778). Bowen is silent disclosing the loading rate of the cerium oxide. However, it does note that cerium oxide is used to ensure that the conventional free burn rate of tobacco is maintained, a showing of a result effective variable. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have conducted routine experimentation on the amount of cerium oxide in order to provide burn rates of conventional cigarettes. An optimum amount of cerium oxide would be obvious to be determined in order to assure that an overload of cerium oxide does not decrease the number of puff a cigarette can provide due to an increase oxygen release.

Claims 10-11, 15-16, 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen et al WO 99/53778 ('778) in view of Grodek (US 5,004, 711). As noted above, Bowen teaches of using sorbitive material using a zeolite that may provide a dual purpose, sorbent material and catalyst material. '778 is silent disclosing other types of sorbent material. However, Grodek teaches that zirconium oxide is an adsorbent (Col. 11, lines 55) that can be used in cigarettes to filter smoke. At the time the invention was made, it would have been obvious to a person of ordinary skill in the

Art Unit: 1731

art to have used other known sorbent material such zirconium oxide as taught by Grodek, as the sorbent material for '778, in order to provide alternate sources of sorbent material.

As for claims 22-23, Bowen notes of using other catalyst such as transition metal oxides, which encompasses the claimed zirconium oxide, see page 14, lines 5ff, when mixed with the cerium oxide and zeolite the above noted treatment material meets the claimed invention as recited in claims 22- 23.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 45-46 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 19 of U.S. Patent No. 6,904,918

Art Unit: 1731

('918). Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 19 of '918 discloses a cigarette comprised of a cerium oxide provided on a non-combustible porous particulate adjunct. Hence, it is obvious to a person of ordinary skill in the art that the cerium oxide provided on a porous adjunct meets the claimed limitation of a porous particulate cerium oxide.

As for claims 45-46, in view that claim 19 provides for the claimed porous particulate adjunct and the claimed cerium oxide, it would be obvious to a person of ordinary skill in the art to have expected the catalyst to release oxygen at free burn rate temperatures of the cigarette.

Claims 1,4-8,12-14, 20-21 and 45-46 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 22-24 and 26 of U.S. Patent No. 6,810,884 ('884). Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 22 of '884 discloses a low sidestream smoke cigarette comprising a conventional tobacco rod and a non-combustible treatment material for said rod, wherein said treatment material has a porosity less than about 200 Coresta units and a sidestream smoke treatment composition comprising, in combination, an oxygen storage and donor metal oxide oxidation catalyst and an essentially non-combustible finely divided porous particulate adjunct for said catalyst. Wherein the catalyst is cerium oxide and the adjunct is a zeolite. Hence, it is obvious to a person of ordinary skill in the art that the cerium oxide

Art Unit: 1731

provided on a porous adjunct meets the claimed limitation of a porous particulate cerium oxide.

As for claim 4 and 13-14, claim 24 of '884 notes of fixing the catalyst onto the zeolite.

As for claim 5, claim 23 of '884, provide a layer of cerium oxide onto a layer of zeolite.

As for claims 6-8 and 21, claim 26 of '884 notes the claimed catalyst.

As for claims 45-46, in view that claim 22 provides for the claimed porous particulate adjunct and the claimed cerium oxide, it would be obvious to a person of ordinary skill in the art to have expected the catalyst to release oxygen at free burn rate temperatures of the cigarette.

Claim 1-2,4-8,12-14, 20-21 and 45-46 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 18-20,23,50 of U.S. Patent No. 6,799,578 ('578). Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 18 of '578 discloses a low sidestream smoke cigarette comprising a conventional tobacco rod, and a combustible treatment paper having a sidestream smoke treatment composition, said treatment composition comprising in combination, an oxygen storage and donor metal oxide oxidation catalyst and an essentially non-combustible finely divided porous particulate adjunct for said catalyst where said oxygen storage and donor metal oxide oxidation

Art Unit: 1731

catalyst releases oxygen at free burn rate temperatures for said cigarette wherein the catalyst is cerium oxide. Hence, it is obvious to a person of ordinary skill in the art that the cerium oxide provided on a porous adjunct meets the claimed limitation of a porous particulate cerium oxide.

As for claim 2, claim 50 notes the claimed particle size.

As for claim 4, the catalyst is admixed with the zeolite as noted in claim 19 of '578.

As for claim 5, and 13-14, claim 20 of '578, provide a layer of cerium oxide onto a layer of zeolite.

As for claims 6-8 and 21, claim 23 of '578 notes the claimed catalyst.

Claims 1,12,20, and 45-46 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 29 of U.S. Patent No.6, 371, 127('127). Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 29 of '127 discloses providing a hydrate of cerium oxide onto a non-combustible porous tubular element. Hence, it is obvious to a person of ordinary skill in the art that the cerium oxide provided on a porous element meets the claimed limitation of a porous particulate cerium oxide.

. As for claims 45-46, in view that claim 29 provides for the claimed porous particulate adjunct and the claimed cerium oxide, it would be obvious to a person of ordinary skill in the art to have expected the catalyst to release oxygen at free burn rate temperatures of the cigarette.

Claims 1,12,20, and 45-46 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 5 and 13 of U.S. Patent No. 6,286,516('516). Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 5 and 13 of '516 discloses a cigarette comprised of a cerium oxide provided on a non-combustible porous particulate. Hence, it is obvious to a person of ordinary skill in the art that the cerium oxide provided on a porous adjunct meets the claimed limitation of a porous particulate cerium oxide.

As for claims 45-46, in view that claims 5 and 13 provides for the claimed porous particulate adjunct and the claimed cerium oxide, it would be obvious to a person of ordinary skill in the art to have expected the catalyst to release oxygen at free burn rate temperatures of the cigarette.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references not applied in the above rejections have been cited to show the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

Art Unit: 1731

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, consisting of a stylized 'L' followed by a horizontal line and a small flourish.

CL